

## Wheat health improved with rains

Rains over much of the state has improved stands considerably. Western Kansas is still lacking moisture but parts of west central and northwest have made much progress in moisture needs for the spring wheat crop. With moisture, we are seeing the development of leaf diseases. These diseases are primarily reported as speckled leaf blotch and powdery mildew (Appel and E De-Wolf, KSU). The two diseases have new lesions/infections on lower leaves in a widespread area of central Kansas. Trace amounts of leaf rust are also reported.

Wheat viral diseases are present in the crop. Barley yellow dwarf symptoms of flagged leaves and stunted plants were observed in early April in southeast Kansas (Appel, Copeland). In a recent tour of southwest and west central Kansas, wheat streak mosaic levels were very low and generally a trace when present. Wheat viruses were sampled in Ford, Meade, Clark, Gray, Lane, Ellsworth, and Ellis counties (Appel).

## Oak decline still out there and troublesome

It has been some time since I have reported on oak decline since walnuts and pines have had big issues. Oak decline continues to be a problem to landowners in central and eastern Kansas. Kansas Forest Service and the Kansas Department of Agriculture are aware of the problem and work with landowners in an attempt to understand each sites characteristics.

Causes for oak decline are many and difficult to separate. Insects including flower and nut weevils, Hypoxylon canker, borers, leaf defoliating insects and diseases, cankers, and Armillaria crown rot are some of the biological components of decline. Decline in mature stands are generally triggered by droughty conditions, spring defoliation, southern exposures, and rocky or shallow soils. Stressed oaks then are infected with insects and disease. Fire can be a positive input or sometimes a negative in a stand. Younger trees are able to adapt and recover from stress to a much greater extent than older trees. Decline is almost always associated with mature or over mature trees and stands. Red oaks are generally reported as having more problems but in Kansas both white and red suffer. Dry hot weather of 2010 and early 2011 stressed trees and we may see a new round of decline in the state.

Oak decline can be characterized by progressive branch dieback, sprouting of small twigs/branches on larger branches, leaves attached when trees die, and increasingly mortality. The decline in a stand will usually peak in five years. Below are images of a burr oak with upper crown of greater than 50% (left image) and hypoxylon canker on the trunk (right image).



PLANT PROTECTION AND WEED CONTROL  
PROGRAM

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## INVASIVE SPECIES

## Plant Protection and Weed Control Program

Plant Protection and Weed Control staff work to ensure the health of the state's native and cultivated plants by excluding or controlling destructive pests, diseases and weeds. Staff examine and analyze pest conditions in crop fields, rangelands, greenhouses and nurseries. Action taken to control potential infestations of new pests, whether they are insects, plants diseases or weeds, is beneficial to the economy and the environment.

### Our Mission is to:

- Exclude or control harmful insects, plant diseases, and weeds;
- Ensure Kansas plants and plant products entering commerce are free from quarantine pests;
- Provide customers with inspection and certification services.

The Plant Disease Survey in Kansas has been conducted since 1976. The survey addresses disease situations in field crops, native ecosystems, and horticultural trade. The Kansas Department of Agriculture works cooperatively with Kansas State University and Extension programs, United States Department of Agriculture, and various commodity groups.

## Greenhouse diseases

Impatiens Necrotic Spot virus is rearing its ugly head again this year and it is important for growers to continue to monitor crops for the disease and the thrips vector. Below are some images from staff of disease in kalanchoe (ring spots) and then New Guinea impatiens with puckering (arrow) and twisted growth from the virus. Other diseases reported include hosta virus x, gray mold and Pythium damping off.

